

Message Text

SECRET

PAGE 01 GENEVA 09612 01 OF 02 231912Z
ACTION SS-25

INFO OCT-01 ISO-00 SSO-00 NSCE-00 DODE-00 CIAE-00
INRE-00 ACDE-00 DOEE-00 /026 W
-----031445 231917Z /43
O 231850Z JUN 78
FM USMISSION GENEVA
TO SECSTATE WASHDC IMMEDIATE 1295
INFO AMEMBASSY LONDON PRIORITY
AMEMBASSY MOSCOW PRIORITY

S E C R E T SECTION 01 OF 02 GENEVA 09612

EXDIS USCTB

PASS TO DOE

E.O.11652:XGDS-3
TAGS:PARM US UK UR
SUBJECT: CTB NEGOTIATIONS: REPORT OF PLENARY MEETING,
JUNE 23, 1978 -

CTB MESSAGE NO.246

1. SUMMARY: AT JUNE 23 PLENARY, JOHNSON (US) INTRODUCED
PRESENTATION OF DESIGN DATA ON PRDTOTYPE NATIONAL SEISMIC
STATION (NSS) EQUIPMENT. STOKES (US) THEN DESCRIBED
DESIGN APPROACH, SYSTEM APPEARANCE AND OPERATION, AND
BLOCK DIAGRAMS OF ELECTRONICS. PETROSYANTS (USSR)
EXPRESSED WARM APPRECIATION FOR BRIEFING AND ASKED SEVERAL
PRELIMINARY QUESTIONS ABOUT WHEN EQUIPMENT WOULD BE
AVAILABLE AND DETAILS OF RELIABILITY TESTING. IN POST
PLENARY HEADS OF DEL SESSION PETROSYANTS SAID THAT
PLENARY HAD BEEN OF GREAT IMPORTANCE. GIVING PRELIMINARY
REACTION TO PRESENTATION, HE SAID EQUIPMENT SEEMED TO HIM
SECRET

SECRET

PAGE 02 GENEVA 09612 01 OF 02 231912Z

TO BE AT BEGINNING OF DEVELOPMENT STAGE. HE QUESTIONED
WHETHER DESTINY OF TREATY SHOULD BE ENTRUSTED TO
"SCIENTIFIC EXPERIMENTS." EDMONDS SAID THAT UK DEL WOULD
INTRODUCE LANGUAGE FOR FORMAL ARTICLES OF TREATY, INCLUD-
ING DURATION AND REVIEW CONFERENCE, ON MONDAY. END
SUMMARY. - . 'ND

2. JOHNSON INTRODUCED STOKES TO PROVIDE A PRESENTATION OF DESIGN DATA ON PROTOTYPE NSS STATION BEING ASSEMBLED AT SANDIA LABORATORY IN NEW MEXICO. HE NOTED IN STATEMENT (SEPTEL) THAT PRESENTATION WAS IN RESPONSE TO SOVIET DEL REQUEST FOR DESIGN INFORMATION ON EQUIPMENT BEING DEVELOPED. WHEN, IN NEAR FUTURE, US DEL ALSO PRESENTED ITS PROPOSALS ON NSS NUMBERS AND LOCATIONS, ALL INFORMATION WOULD BE AVAILABLE TO OPEN SERIOUS NEGOTIATIONS ON THIS SUBJECT. JOHNSON STRESSED THAT STATION DID NOT INTRODUCE NEW BASIC TECHNOLOGY, BUT RATHER WAS AN INTEGRATION OF EXISTING COMPONENTS INTO A HIGHLY RELIABLE SYSTEM WITH APPROPRIATE OPERATING CHARACTERISTICS. THE DOCUMENTS STOKES WOULD PRESENT WERE ACTUAL WORKING MATERIALS BEING USED AT SANDIA, AND COVERED ALL ASPECTS OF PROTOTYPE EQUIPMENT EXCEPT AUTHENTICATOR AND BUBBLE MEMORY. PROTOTYPE STATION WOULD BE INSTALLED IN OCTOBER, AND PRODUCTION MODELS COULD BE AVAILABLE IN AMPLE TIME FOR ENTRY INTO FORCE OF A CTB.

3. STOKES BEGAN BY NOTING SCOPE OF PROGRAM AND ITS PRIORITY, DESCRIBING ITS PURPOSE AS INTEGRATING PROVEN TECHNOLOGY TO DEVELOP EQUIPMENT SUITABLE FOR NSS. DESIGN APPROACH EMPHASIZED USE OF HIGH QUALITY PARTS AND EXTENSIVE TESTING TO ASSURE HIGH RELIABILITY AND MINIMUM MAINTENANCE. HE DESCRIBED MAJOR COMPONENTS OF EQUIPMENT USING ARTIST'S CONCEPTION OF INSTALLED STATION, INCLUDING
SECRET

SECRET

PAGE 03 GENEVA 09612 01 OF 02 231912Z

DOWNHOLE PACKAGE, SURFACE ELECTRONICS, ANTENNA, AND POWER SUPPLY. CHARACTERISTICS AND PURPOSE OF DIGITAL DELAY LINE AND BACKUP TAPE RECORDER WERE DESCRIBED, AND A SERIES OF PHOTOGRAPHS WERE PRESENTED SHOWING ACTUAL HARDWARE BEING CONSTRUCTED AND UNDER TEST. STOKES THEN PROVIDED MANUALS FOR SEISMOMETERS, POWER SUPPLY, AND TAPE RECORDER, AS WELL AS BLOCK DIAGRAMS OF SYSTEM ELECTRONICS. FINALLY, HE EXPLAINED ORGANIZATION OF BLOCK DIAGRAMS AND SHOWED HOW THEY RELATED TO ACTUAL ARRANGEMENT OF CIRCUIT BOARDS. IN CLOSING PRESENTATION, JOHNSON NOTED THAT AFTER THE PLENARY, THE HEADS OF DELEGATIONS COULD DISCUSS THE MOST APPROPRIATE MANNER FOR TAKING UP THE EVEN MORE DETAILED ACTUAL CIRCUIT SCHEMATICS.

4. PETROSYANTS ASKED SEVERAL PRELIMINARY QUESTIONS FOCUSING ON WHEN EQUIPMENT WOULD BE AVAILABLE AND MEASURES TO ASSURE RELIABILITY. WHEN WOULD FIRST ASSEMBLY OF ENTIRE NSS UNIT BE READY? STOKES SAID UNIT WOULD FIRST BE ASSEMBLED AT SANDIA IN AUGUST OR SEPTEMBER, AND THEN INSTALLED FOR TESTING IN TENNESSEE IN OCTOBER. ON RELIABILITY, PETROSYANTS ASKED WHAT DEGREE OF RELIABILITY WOULD BE ACHIEVED IN PROTOTYPE TO BE DEPLOYED IN OCTOBER;

WHAT MEASURES WERE USED TO ASSURE RELIABILITY; AND HOW LONG WHOLE SYSTEM WOULD BE TESTED AFTER ASSEMBLY IN OCTOBER. STOKES EXPLAINED GOAL OF OPERATING WITHOUT MAINTENANCE FOR CONSIDERABLY MORE THAN ONE YEAR, AND DESCRIBED CHECKING AND "BURN IN" PROCEDURES TO ASSURE RELIABILITY. TESTING PROCEDURES USED WERE SIMILAR TO THOSE USED FOR SATELLITE SYSTEMS. TEST OF SYSTEM WOULD CONTINUE INDEFINITELY, BUT HE THOUGHT ABOUT THREE MONTHS OPERATION SHOULD BE ENOUGH TO PROVIDE CONFIDENCE IN OPERATION OF PROTOTYPE. FINALLY, PETROSYANTS WARMLY THANKED STOKES FOR PRESENTATION AND EXPRESSED APPRECIATION

SECRET

NNN

SECRET

PAGE 01 GENEVA 09612 02 OF 02 231916Z
ACTION SS-25

INFO OCT-01 ISO-00 SSO-00 NSCE-00 DODE-00 INRE-00
CIAE-00 ACDE-00 DOEE-00 /026 W
-----031492 231920Z /42

O 231850Z JUN 78
FM USMISSION GENEVA
TO SECSTATE WASHDC IMMEDIATE 1296
INFO AMEMBASSY LONDON PRIORITY
AMEMBASSY MOSCOW PRIORITY

S E C R E T SECTION 02 OF 02 GENEVA 09612

EXDIS USCTB

PASS TO DOE

IN ADVANCE FOR HARD WORK DURING FUTURE TECHNICAL MEETINGS
TO FURTHER EXPLORE US DEL MATERIAL.

5. DURING POST PLENARY HEADS OF DEL MEETING, PETROSYANTS BEGAN BY ASKING WHY US PROPOSED NOT TO ASSEMBLE NSS SYSTEM UNTIL TWELVE MONTHS AFTER TREATY'S ENTRY INTO FORCE. JOHNSON AND NEIDLE EXPLAINED THAT SHOULD TREATY ENTER INTO FORCE IN 1979, WE WOULD HAVE AMPLE TIME TO BEGIN DEPLOYING NSS DURING FIRST YEAR TREATY WAS IN FORCE. THE SEISMOMETERS IN THE SYSTEM HAD IN FACT ALREADY BEEN IN USE FOR A CONSIDERABLE PERIOD AND WERE DEPENDABLE. PETROSYANTS REPLIED THAT HE HAD A SLIGHTLY DIFFERENT VIEW OF THE SUBJECT; THAT IT WAS IMPOSSIBLE TO ASSMBLE AND TEST OUT A STATION IN SUCH A SHORT TIME AND THAT

WHAT WE HAD SEEN TODAY WAS ONLY ONE STATION. HE SAID THAT REGARDLESS OF ITS DEGREE OF AUTOMATION, SUCH A STATION NEEDS LIVING QUARTERS FOR PERSONNEL, ESPECIALLY WHEN IT IS LOCATED IN REMOTE AREAS. AT THE FIRST GLANCE THIS WOULD REQUIRE SEVERAL YEARS.

SECRET

SECRET

PAGE 02 GENEVA 09612 02 OF 02 231916Z

6. PETROSYANTS PROCEEDED TO EXPLAIN THAT IN THE SOVIET UNION SCIENTIFIC PROJECTS OF THIS KIND ARE DIVIDED INTO TWO STAGES: THE FIRST IS CALLED SCIENTIFIC RESEARCH WORK AND THE SECOND TESTING AND DEVELOPMENT. IN HIS VIEW, WHAT WAS PRESENTED TODAY REPRESENTS THE LAST STAGE OF THE SCIENTIFIC RESEARCH WORK AND THE BEGINNING PHASE OF THE DEVELOPMENT STAGE. HE SAID WE ARE WORKING ON AN IMPORTANT TREATY AND WE CANNOT PUT THIS WORK IN THE FRAMEWORK OF A SCIENTIFIC AND DEVELOPMENTAL ENDEAVOR. ONE CANNOT ENTRUST THE DESTINY OF SUCH AN IMPORTANT TREATY TO SCIENTIFIC EXPERIMENTS. THE NSS SYSTEM IS HIGHLY IMPORTANT; IT IS ONE THING TO TEST SEPARATE ELEMENTS, AND QUITE ANOTHER TO TEST THE ENTIRE SYSTEM. FOR THIS, MUCH TIME IS REQUIRED, MORE THAN THE THREE MONTHS THAT WAS MENTIONED DURING THE PRESENTATION. "THAT IS HOW I, AS AN ENGINEER, SEE THE MATTER." PETROSYANTS THEN USED AN EXAMPLE OF A PROBLEM IN A SOVIET REACTOR TO ILLUSTRATE THE DIFFICULTIES OF ASSURING RELIABLE OPERATION OF COMPLEX SYSTEMS.

7. JOHNSON POINTED OUT THAT THE NSS DESIGN WAS MUCH SIMPLER THAN A NUCLEAR REACTOR. THE RELIABILITY OF THE SYSTEM DEPENDED ON ITS COMPONENTS, WHICH WERE BEING TESTED RIGOROUSLY, BUT THAT OF COURSE THE OVERALL RELIABILITY COULD NOT BE JUDGED UNTIL THE COMPLETE SYSTEM WAS TESTED. FAKLEY (UK) POINTED OUT THAT THE TASK WAS NOT TO DEVELOP NEW TECHNOLOGY, BUT MERELY TO ASSEMBLE PROVEN COMPONENTS INTO AN INTEGRATED SYSTEM.

8. EDMONDS (UK) SAID UK DEL WOULD INTRODUCE TREATY LANGUAGE DEALING WITH FORMAL PROVISIONS, INCLUDING DURATION AND REVIEW CONFERENCE, EARLY NEXT WEEK, AND IT WAS AGREED THAT THIS SUBJECT WOULD THEN BE REFERRED TO

SECRET

SECRET

PAGE 03 GENEVA 09612 02 OF 02 231916Z

THE POLITICAL WORKING GROUP. JOHNSON

SECRET

NNN

Message Attributes

Automatic Decaptioning: Z
Capture Date: 01 jan 1994
Channel Indicators: n/a
Current Classification: UNCLASSIFIED
Concepts: REPORTS, NEGOTIATIONS, MEETING REPORTS, MEETINGS
Control Number: n/a
Copy: SINGLE
Draft Date: 23 jun 1978
Decaption Date: 20 Mar 2014
Decaption Note: 25 YEAR REVIEW
Disposition Action: RELEASED
Disposition Approved on Date:
Disposition Case Number: n/a
Disposition Comment: 25 YEAR REVIEW
Disposition Date: 20 Mar 2014
Disposition Event:
Disposition History: n/a
Disposition Reason:
Disposition Remarks:
Document Number: 1978GENEVA09612
Document Source: CORE
Document Unique ID: 00
Drafter: n/a
Enclosure: n/a
Executive Order: X3
Errors: N/A
Expiration:
Film Number: D780262-0952
Format: TEL
From: GENEVA USCTB
Handling Restrictions:
Image Path:
ISecure: 1
Legacy Key: link1978/newtext/t19780627/aaaaawwx.tel
Line Count: 221
Litigation Code IDs:
Litigation Codes:
Litigation History:
Locator: TEXT ON-LINE, ON MICROFILM
Message ID: 328ba182-c288-dd11-92da-001cc4696bcc
Office: ACTION SS
Original Classification: SECRET
Original Handling Restrictions: EXDIS
Original Previous Classification: n/a
Original Previous Handling Restrictions: n/a
Page Count: 5
Previous Channel Indicators: n/a
Previous Classification: SECRET
Previous Handling Restrictions: EXDIS
Reference: n/a
Retention: 0
Review Action: RELEASED, APPROVED
Review Content Flags:
Review Date: 28 jun 2005
Review Event:
Review Exemptions: n/a
Review Media Identifier:
Review Release Date: n/a
Review Release Event: n/a
Review Transfer Date:
Review Withdrawn Fields: n/a
SAS ID: 2231272
Secure: OPEN
Status: NATIVE
Subject: CTB NEGOTIATIONS: REPORT OF PLENARY MEETING, JUNE 23, 1978 - CTB MESSAGE NO.246
TAGS: PARM, US, UK, UR
To: STATE
Type: TE
vdkgvwkey: odhc://SAS/SAS.dbo.SAS_Docs/328ba182-c288-dd11-92da-001cc4696bcc
Review Markings:
Sheryl P. Walter
Declassified/Released
US Department of State
EO Systematic Review
20 Mar 2014
Markings: Sheryl P. Walter Declassified/Released US Department of State EO Systematic Review 20 Mar 2014